AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) Separation membrane comprises

a porous substrate which is made of ceramic sintered body of which a main ingredient is alumina, and

a zeolite membrane which is formed over the surface of the porous substrate,

wherein the porous substrate comprises a base layer and a foundation layer which is formed on the base layer and is formed for the zeolite membrane, and

wherein the separation membrane is characterized in that a mean pore diameter of the foundation layer is smaller than a mean pore diameter of the base layer.

2. (Original) Separation membrane according to Claim 1, wherein a nitrogen gas permeation rate through the porous substrate is in the range of 200 - 7000 $m^3/(m^2 \cdot hr \cdot atm)$.

3. (Original) Separation membrane according to Claim 2, wherein the nitrogen gas permeation rate is in the range of 400 - 7000 $m^3/(m^2 \cdot hr \cdot atm)$.

4. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 3~~, wherein the mean pore diameter of the base layer is in the range of 4 - 12 μm, and the mean pore diameter of the foundation layer is in the range of 0.4 - 1.2 μm.

5. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 4~~, wherein thickness of the base layer is in the range of 1 - 3 mm.

6. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 5~~, wherein thickness of the foundation layer is in the range of 10 - 200 μm.

7. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 6~~, wherein aspect ratio of particles of which the foundation layer is comprised is not less than 1.05.

8. (Original) Separation membrane according to Claim 7, wherein the aspect ratio of particles of which the foundation layer is comprised is not less than 1.2.

9. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 8~~, wherein porosity of the porous substrate is in the range of 20 - 50%.

10. (Original) Separation membrane according to Claim 9, wherein the porosity of the porous substrate is in the range of 35 - 40 %.

11. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 10~~, wherein the porous substrate has a maximum pore diameter of not more than 9 μm, the maximum pore diameter being determined by the bubble point method using water.

12. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 10~~, wherein the porous substrate has a maximum pore diameter of not more than 7 μm, the maximum pore diameter being determined by the bubble point method using water.

13. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 12~~, wherein a total content of Ca and K included in the porous substrate is not more than 0.8 mol%.

14. (Currently Amended) Separation membrane according to Claim 1 ~~one of Claims 1 to 12~~, wherein the total content of Ca and K is not more than 0.5 mol%.